

# SEVENTH HEAVEN

*B&W's new 700-series neatly fills the gap between its 'budget' 600s and upmarket Nautilus 800s*

**PRODUCT** B&W 703

**TYPE** 3-way floorstanding loudspeaker

**PRICE** £2,000

**KEY FEATURES** Size (WxHxD): 23x101x36cm

• Tube-loaded alloy dome tweeter • 165mm Kevlar midrange driver • 2x 165mm paper/Kevlar bass drivers

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The largest of all the specialist hi-fi speaker brands, Worthing-based B&W is noteworthy for the considerable resources it devotes to research and development, with a small army of engineers operating out of a well-equipped, purpose-built facility some miles away from the main factory in Steyning.

It's this research effort that lay behind the very advanced and radical Nautilus 800 models in 1998, and their subsequent Signature upgrades, and something of the same has now 'trickled down' to the brand new 700-series models, which very much fill a gap between the 800s and their 'budget' 600-series brethren.

There are three 700s all told: an £800 per pair 705 standmount; a £1,300 per pair 704 two-and-a-half-way floorstander; and this £2,000 three-way 703 floorstander, which arrived just a couple of weeks too late for inclusion in this month's group test.

In a sense, these 700s replace the CDM NT models, though perhaps supplant is the better word, as they by no means fit into the same price slots and are claimed to deliver much more of a mid-point level of performance between the widely separated 600s and 800s than their predecessors.

The industrial design brief here was to make reference to the cabinet shape of the outgoing CDM NT series – specifically the concept of mounting an external tweeter on top of a sloping cabinet top – but also to incorporate the bent-wood technology that was pioneered in the Nautilus 800s. A further requirement was to reduce the rather angular appearance of the CDM NTs, and also to take acoustic factors into account.

The new speaker looks less fussy than its predecessor, with cleaner lines and construction that promises some performance advantages. The front and top are formed from a single piece, giving great strength, while the curve under the top-mounted tweeter will give greater 'scatter' than the flat surface used before. The radiused edges have disappeared now, but the enclosure is subtly tapered front to rear, so the only parallel



EDITOR'S CHOICE

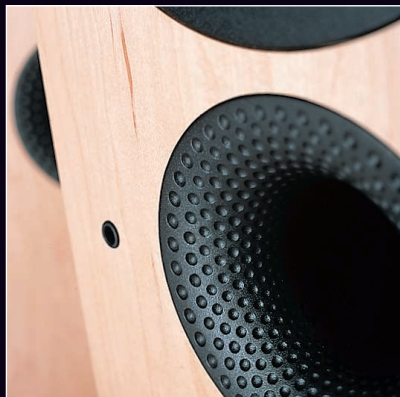
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surfaces are the front and back, which will help to de-focus the internal standing waves. Classy real-wood veneer covers all the faces, our samples coming in an attractive American walnut.

Crucially, this 703 uses a version of the 'surroundless' FST (Fixed Suspension Transducer) midrange driver that was





pioneered by the more upmarket Nautilus models, and which provides one of the better reasons for adopting the extra complexity of a three-way, as distinct from the two-and-a-half-way configuration used in the 704.

In the vast majority of three-ways, the midrange driver is either the same as, or a scaled down version of, the bass driver. However, the essential difference between a midrange-only unit and any unit required to produce bass (whether bass-only or bass/mid) is that a mid-only driver doesn't undergo significant cone excursion.

Whereas the rubber roll surround at the edge of a driver cone normally has to centre the cone, absorb edge-of-cone vibration and permit generous fore 'n' aft excursion, a mid-only driver has no need for the last of these. B&W has therefore come up with a midrange driver with a heavy but unfixed surround that locates the cone but ignores excursion in order to optimise the vibration absorption characteristics, by using a heavy rubber gasket in place of the usual roll. The result, allegedly, is improvement in dynamic range resolution.

Thanks to relatively new Klippel distortion measuring apparatus, all the drive units have undergone significant improvements over their predecessors. B&W calls the techniques it has used to make the drive unit magnetic fields more symmetrical and minimise variations in inductance 'balanced drive'. The high frequency extension of the external tube-loaded tweeter has also been improved, avoiding any need for a 'super-tweeter'.

There are two bass drivers here, port-loaded and operating in tandem, and each with

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Kevlar-reinforced paper cones 120mm in diameter. The FST midrange has B&W's familiar yellow woven Kevlar cone, 140mm in diameter, while the tweeter has a 25mm alloy dome. Just two pairs of terminals are fitted, conveniently low down near the floor.

#### SOUND QUALITY

Not unexpectedly, in-room measurements pointed towards free-space siting for this substantial floorstander, though the bass alignment is relatively dry and bungs are provided should close-to-wall siting be unavoidable for domestic reasons.

First impressions came as a bit of a surprise, especially as the Signature 805 (see p62) was on site at the time of its arrival, allowing immediate comparisons. The 703 is certainly much less laid back than the baby Signature, and actually sounds much more upfront than any B&W in recent memory.

Indeed, the initial judgement was that this speaker was a little too bright and edgy for its own good, with a touch of aggression and harshness that bordered on the unacceptable. This opinion was reinforced by the visible peak at around 4.5kHz, near the bottom end of the tweeter's operating range, which was clearly visible on the far-field in-room traces.

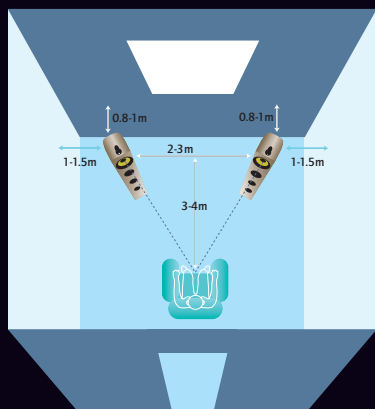
While this treble strength did seem likely to

#### MULTICHANNEL OPTIONS

B&W makes centre and surround speakers to fit in-between and around the 703/4/5 stereo pairs for multichannel sound. The £450 HTM7 (for 'Home Theater Monitor') is the centre-front. Retaining the curved top and external tweeter, this two-way appears bulky, but voice-matches the 703 well enough, albeit without the latter's slightly bright top end. (It matches the 704 even better – probably because it shares the same drivers.) One crucial thing to note – the HTM7 should not be placed on top of a large-screen TV set, as close proximity to a large flat surface adds a 'honky', thickening coloration in the midband. Coming soon, the £900 per pair DS7 surround speaker looks potentially even more interesting. It's switchable between dipole and monopole modes (the former best for movies, the latter for music), and the change can cleverly be effected remotely via a 12V 'trigger' signal from the receiver.

pose a problem at first, after a few days the tendency towards harshness and aggression seemed to have mollified quite significantly. Our samples had apparently had a couple of days of running in before being shipped, but presumably this is a speaker that needs at least a week to get properly settled down. ▀

## SET-UP



### POSITIONING

For the smoothest and most even bass delivery, this speaker design ought really to be kept well clear of walls if at all possible. If domestic considerations dictate some wall proximity, bungs are supplied to block up the ports. However, the ports here are tuned to a low 35Hz, while close-to-wall bass reinforcement occurs rather higher up, in the 50-100Hz octave, so results are unlikely to be smooth.

### MEASURED PERFORMANCE

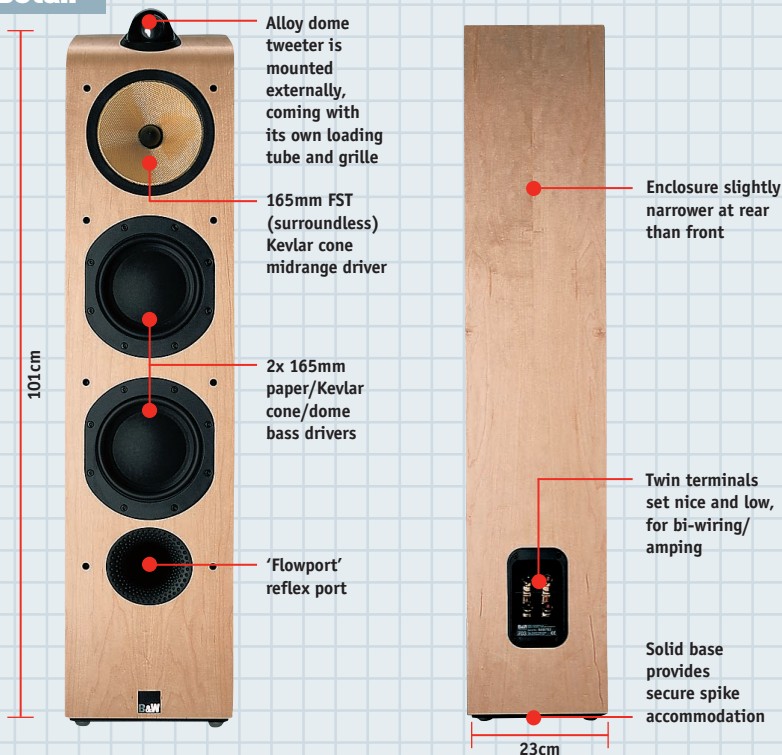
B&W's claim for a 90dB sensitivity is fully justified – even marginally pessimistic perhaps – but the generous figure is compromised by a rather demanding load, which hits a three-ohm minimum at around 100Hz, which is a power-hungry part of the spectrum, and remains low between 80Hz and 350Hz. The in-room far-field averaged responses look very promising, however. With the speakers mounted well clear of walls, and the ports left open, the bass comes across as unusually smooth (+/-4dB throughout, in spite of room modes), and also very well extended (-3dB at 20Hz in-room). The lower midband is a little lean, but strengthens between 500Hz and 1.5kHz. The presence zone is slightly recessed at 1.5-3.5kHz, but then peaks up quite strongly at 4-6kHz, although these trends are obvious enough, both in measurement and audible terms.

### SYSTEM MATCHING

Although this speaker has a decent enough sensitivity, the impedance dips to a low three ohms in the bass and lower midband. It's therefore not really suitable for use with lower power valve amps such as single-ended and direct-coupled types, and is better partnered with solid state amplifiers that have relatively generous current delivery capabilities.



## Detail



Once properly in the groove, the 703 showed some delightful characteristics, and an overall standard of performance that stands well out from the two-grand crowd. There's still arguably a touch too much strength at the top end here – it's certainly a dB or two stronger than the 704 here, for example – and this can occasionally prove a trial with bright and edgy recordings, especially if you want to play them loud. But by the same token it often adds some welcome extra 'bite' and clarity to the musical proceedings.

It was interesting to have the 704 on hand, and many will prefer the slightly warmer and more laid-back balance and restrained treble of the less expensive model (reviewed next month). But direct comparison immediately highlights the obvious superiority of the 703's FST midrange, which reproduces voices in particular with much greater clarity and expression, with a significantly wider dynamic resolution window. It's not entirely free

from coloration – there's a certain amount of nasality here – but it is very expressive, and stereo imaging is beautifully spacious and superbly free from boxiness. A very complex modern composition involving several choirs – *Idmen*, by Iannis Xenakis, since you didn't ask – came over the BBC airwaves late one summer's evening, and the separation and clarity which the 703s brought to the complex vocal parts was really quite transfixing. This is far from familiar or indeed comfortable music for late night listening, yet I was genuinely

disappointed when it finished.

If the midband is something a bit special, the bass end is arguably even better. It's dry, clean, deep and even, all of which is quite unusual and impressive. Even better, it's very, very fast and always agile, bringing truly propulsive momentum and drive to a bass-led album like the Easy Star All-Stars' *Dub Side Of The Moon*. Even an overblown recording like Wyclef Jean's *The Carnival* managed to sound quite crisp and controlled – and very, very clean and clear.

Do check first that this speaker's slightly cool, thin and bright balance suits your personal taste and system. If it does, you'll be rewarded with a wonderfully analytical and entertaining speaker, with superb agility and an exceptionally wide dynamic range. **HFC**

Paul Messenger

## VERDICT

### SOUND >> 91%



### EASE OF DRIVE >> 66%



### BUILD >> 95%



### VALUE >> 88%



### PRO

Classy floorstander has artfully shaped enclosure and very advanced drive units. Superb imaging and an exceptional dynamic range, with expressive midband, and fast, clean and deep bass.

### CON

Sound is dry, cool and a touch thin – the top end a mite strong, giving a character which can become aggressive.

### CONCLUSION

Classy floorstander with very advanced drivers delivers superb imaging and exceptional dynamic range, with a very expressive midband and fast, clean bass, though its bright top end can become aggressive when played loud.

**HI-FI CHOICE**  
OVERALL SCORE >> **89%**